

REMARKS

Applicant respectfully requests further examination and reconsideration in view of the instant response. Claims 1-40 remain pending in the case. Claims 1-40 are rejected. Claims 1, 23, and 32 are amended herein. No new matter has been added as a result of the claim amendments. Support for the amendments of Claims 1, 23, and 32 can be found at least at page 7, lines 15-17.

AMENDMENTS TO DRAWINGS

Applicant noted one informality with respect to the Drawings; in particular item 180 which was shown in Figure 1B and in Figure 1C assigned to two different features. In the attached replacement drawing, the Figure 1C has been amended to change the designation of Template Processor 180 to Template Processor 177.

AMENDMENTS TO SPECIFICATION

Applicant noted one informality with respect to the identifier associated with Calibration Data and Template Processor. Both were assigned identifier 180. The specification has been amended to change the designation of Template Processor 180 to Template Processor 177. No new matter has been added as a result of remedying this informality.

CLAIM REJECTIONS

35 U.S.C. §103(a)

Claims 1, 2, 4, 6, 9, 11, 13-15, 18-23, 24, 26 and 28-31

The instant Office Action states that Claims 1, 2, 4, 6, 9, 11, 13-15, 18-23, 24, 26 and 28-31 are rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 6,909,792 by Carrott et al. (referred to hereinafter as "Carrott") in view of U.S. Patent No. 5,491,627 by Zhang et al. (referred to hereinafter as Zhang). Applicant has reviewed the cited art and respectfully submits that the embodiments recited in Claims 1- 40 are patentable over Carrott in view of Zhang for at least the following rationale.

Independent Claims 1, 23 and 32 have been amended. Support for the amendments to independent Claims 1, 23 and 32 can be found in the instant

Application serial no. 10/698,111, among other places, at page 7 lines 15-17 which states,

Visual sensor 105 may comprise one or more emitters and sensors of electromagnetic radiation including but not limited to visible, infrared, or ultraviolet light. (emphasis added)

Applicant respectfully directs attention to independent Claim 1 as currently amended that recites (emphasis added),

A method for visual-based recognition of an object, said method comprising:

receiving depth data for at least a pixel of an image of an object, said depth data comprising information relating to a distance from a visual sensor to a portion of said object shown at said pixel, said visual sensor comprising an emitter and sensor of light, wherein said light is selected from the group of electromagnetic radiation consisting of visible light, infrared light, and ultraviolet light;

generating a plan-view image based in part on said depth data; extracting a plan-view template from said plan-view image; and processing said plan-view template at a classifier to assign a class to said plan-view template, wherein said classifier is trained to make a decision according to pre-configured parameters determined at least in part based on said class of said plan-view template.

Independent Claims 23 and 32 include similar recitations. Claims 2-22 that depend from independent Claim 1, Claims 24-31 that depend from independent Claim 23, and Claims 33-40 that depend from Claim 32 also include these recitations.

Applicant respectfully asserts that the combination of Carrott and Zhang does not teach, describe or suggest the embodiments claimed because the combination of Carrott and Zhang does not satisfy the requirements of a *prima facie* case of obviousness.

“As reiterated by the Supreme Court in *KSR*, the framework for the objective analysis for determining obviousness under 35 U.S.C. 103 is stated in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966). Obviousness is a question of law based on underlying factual inquiries” including “[a]scertaining the differences between the claimed invention and the prior art” (MPEP 2141(II)). “In determining the differences between the prior art and the claims, the question under 35 U.S.C. 103 is not whether the differences themselves would have been obvious, but whether the claimed invention as a whole would have been obvious” (emphasis in original; MPEP 2141.02(I)). Applicant notes that “[t]he prior art reference (or references when

combined) need not teach or suggest all the claim limitations, however, Office personnel must explain why the difference(s) between the prior art and the claimed invention would have been obvious to one of ordinary skill in the art" (emphasis added; MPEP 2141(III)).

Applicant respectfully submits that Carrott in view of Zhang does not teach or suggest, "...said visual sensor comprising an emitter and sensor of light, wherein said light is selected from the group of electromagnetic radiation consisting of visible light, infrared light, and ultraviolet light," (emphasis added) as recited by Claim 1 and similarly in Claims 23 and 32.

Applicant understand Carrott to teach a method of visually documenting historical changes in biological tissue wherein a system for enhancing imagery of bodily tissues by relating earlier and later images is used. For example, Carrott states at column 1, lines 25-30,

Various imaging modalities are available to visualize lesions, including X-ray (most common), ultrasonography, magnetic resonance imaging and other known methods. Whatever imaging method is used, to make meaningful before/after comparisons it is necessary to insure that the same region of tissue is under examination. (emphasis added).

Moreover, Applicant submits that Zhang does not overcome the shortcomings of Carrott. Applicant submits that Zhang does not teach or suggest a modification to Carrott that remedies the deficiencies of Carrott noted above. More specifically, Zhang does not teach, describe or suggest, "...said visual sensor comprising an emitter and sensor of light, wherein said light is selected from the group of electromagnetic radiation consisting of visible light, infrared light, and ultraviolet light," (emphasis added) as recited by Claim 1 and similarly in Claims 23 and 32. Applicant respectfully submits that Zhang is silent to a visual sensor comprising an emitter and sensor of light, wherein said light is selected from the group of electromagnetic radiation consisting of visible light, infrared light, and ultraviolet light. Applicant understands Zhang to teach a method and system for the detection of microcalcifications in digital mammograms. For example, Zhang teaches at column 9, lines 18-21 an apparatus, such as an x-ray device and laser scanner for obtaining a digital mammogram.

Moreover, no articulated reasoning is provided in the Rejection which would explain why the claimed embodiments would have been obvious to one of ordinary skill in the art in spite of these differences between the claimed embodiments and the art

cited by the Rejection. As such an articulated reasoning is required, by the MPEP, Applicant submits that Claims 1, 23, and 32 overcome the rejection under 35 U.S.C. §103(a) and are in condition for allowance. Similarly Applicant submits that Claims 2-22 that depend from independent Claim 1, Claims 24-31 that depend from independent Claim 23, and Claims 33-40 that depend from Claim 32 are also allowable over the cited art for at least the reasons described above and by virtue of their dependence from allowable independent claims.

Claims 3, 10, 12, 16, 17, 19-22, 25, 27, 34, and 38

Claims 3, 10, 12, 16, 17, 19-22, 25, 27, 34, and 38 are rejected under 35 U.S.C. §103(a) as being unpatentable over Carrott in view Zhang in further view U.S. Patent Publication No. 2003/0108244 by Li et al. (referred to hereinafter as Li). Applicant has reviewed the cited reference and respectfully submits that the embodiments recited in Claims 3, 10, 12, 16, 17, 19-22, 25, 27, 34, and 38 are patentable over Carrott in view of Zhang in further view of Li for at least the previous rationale. For the sake of brevity the previous rationale will not be repeated, since Applicant understands Li, as with Carrott and Zhang does not satisfy the requirements of a *prima facie* case of obviousness for at least the same previous rationale.

Applicant understands Li to teach a system and method for multi-view face detection. Applicant respectfully asserts that there is no suggestion or motivation to combine Li with Carrott. "[T]he claimed combination cannot change the principle of operation of the primary reference or render the reference inoperable for its intended purpose" (MPEP 2145(V)). "If proposed modification would render the prior art invention being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed modification. *In re Gordon*" (MPEP 2143.01 (V)).

Applicant respectfully asserts that Li in combination with Carrott would change the principle of operation of Carrott. Applicant understands Carrott to teach at column 1, lines 25-30 the imaging modalities which enable Carrott to be X-ray (most common), ultrasonography, and magnetic resonance imaging. Applicant understands Li to be silent to the use of X-ray, ultrasonography, and magnetic resonance imaging. For example Li teaches at page 5, last line of right column continuing on page 6, first 4 lines of left column, the particular significance of Li's invention is the ability to capture a sequence of images with a camera such as a digital/electron still or video camera, or film/photographic scanner. Applicant understands these camera devices that enable Li

rely upon visible light and are mute to the use of X-ray, ultrasonography, and magnetic resonance imaging. Applicant further understands Carrott to teach at column 3, lines 22-67 the pathological analysis of features of a breast. The combination of Li to modify Carrott from the use of X-ray, ultrasonography, and magnetic resonance imaging to the use of camera devices relying upon visible light would render Carrott inoperable for its intended purpose of Xray, ultrasonic, and MRI imaging. As such a *prima facie* case of obviousness of Claims 3, 10, 12, 16, 17, 19-22, 25, 27, 34, and 38 cannot be made by combining Carrot in view of Zhang and further in view of Li. Thus, Applicant submits that Claims 3, 10, 12, 16, 17, 19-22, 25, 27, 34, and 38 are allowable over the 35 U.S.C. 103(a) rejection under Carrot in view of Zhang and further in view of Li.

The instant application as claimed in Claims 19-22, which include the recitations of Claim 1, recite the following: "...wherein said decision is to distinguish between a human and a non-human " (see Claim 19);... "between a plurality of different human body orientations" (see Claim 20); ... "between a plurality of different human body poses" (see Claims 21); ... "between a plurality of different classes of people," (see Claim 22). (emphasis added). However, Applicant submits that Carrott relies upon the same region of tissue be under examination and therefore teaches away from these claim features. For example, Applicant respectfully assert that Carrott teaches away from a decision to "distinguish between a human and a non-human," "between a plurality of different human body orientations," "between a plurality of different human body poses," and "between a plurality of different classes of people," as recited in Claims 19-22, by stating at column 1, lines 28-30 that to make meaningful before/after comparisons it is necessary to insure that the same region of tissue is under examination." (emphasis added). Carrot teaches away from the features of Claims 19-22 and Applicant submits that further modification of Carrot in view of Zhang and Li can do nothing to remedy this deficiency. As such, for this additional reason, Applicant submits that Claims 19-22 are allowable over the 35 U.S.C. 103(a) rejection under Carrot in view of Zhang and further in view of Li.

CONCLUSION

In light of the above listed amendments and remarks, reconsideration of the rejected claims is requested. Based on the arguments and amendments presented above, it is respectfully submitted that Claims 1-40 overcome the rejections of record. For reasons discussed herein, Applicant respectfully requests that Claims 1-40 be considered by the Examiner. Therefore, allowance of Claims 1-40 is respectfully solicited.

Should the Examiner have a question regarding the instant amendment and response, the Applicant invites the Examiner to contact the Applicant's undersigned representative at the below listed telephone number.

Respectfully submitted,
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